

Appl. No. 10/509,457
Amdt. Dated March 15, 2006
Reply to Office Action of December 15, 2005

Listing of Claims:

1. (Previously Presented) A method of determining a corresponding image for a reference image from an image sequence of a moving object by means of a first and a second motion signal, in which

- the first and the second motion signal represent the respective variation in time of the states of motion of a first motion and a second motion of the object,

- the image sequence represents the first motion of the object as a sequence of images of states of motion,

- the reference image represents a state of motion from the second object motion and is acquired at a reference instant during the second motion of the object, including the following steps:

- a. determining a similarity function by way of a similarity comparison of the first and the second motion signal,

- b. determining a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to the acquisition instant of the reference image from the second motion signal,

- c. determining, using the first motion signal, that image of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant.

2. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ the similarity function is obtained by means of the so-called dynamic time warping method.

3. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ an interpolation image is formed from the corresponding image and a further image from the image sequence, which interpolation image represents at least substantially the state of motion of the object at the correspondence instant.

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4. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ the first and the second motion signal from an electrocardiographic signal and that the images of the image sequence and the reference image represent states of motion of a human or animal heart.

5. (Currently Amended) A method as claimed in claim 4, ~~characterized in that wherein~~ the blood vessels of the heart are filled at least partly with a contrast medium either in images of the image sequence or in the reference image.

6. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ the image sequence forms an X-ray image sequence and/or the reference image forms an X-ray image.

7. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ the image sequence and/or the reference image forms an ultrasound image.

8. (Previously Presented) A system which includes a data processing unit for determining a corresponding image of a moving object for a reference image from an image sequence by means of a first and a second motion signal, the data processing unit being arranged to carry out a method as claimed in claim 1.

9. (Previously Presented) An examination apparatus which includes an X-ray image detector and means for the detection of electrocardiographic signals, which apparatus includes a system as claimed in claim 8.

10. (Currently Amended) ~~A computer program or computer program product which is arranged to cooperate with a data processing unit in such a manner that the data processing unit is capable of~~ A computer-readable storage medium storing a program for causing a computer to perform having instructions for carrying out a method as claimed in claim 1.